

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A method for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising the steps of:

receiving bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier that identifies a type of data to be transmitted, and ~~the~~ an amount of required bandwidth;

storing ~~each of~~ the bandwidth requests in a data structure so as to maintain ~~the~~ an order in which the bandwidth requests were received;

~~based on said priority identifier and said order of each bandwidth request,~~
scheduling ~~each said~~ the bandwidth requests in an order to be serviced based on the priority identifier and the order in which the bandwidth requests were received;

calculating a data burst bandwidth for each of the one or more data providers by combining each of said the amount of required bandwidth specified in scheduled
bandwidth requests having the same ~~said~~ data provider identifier ~~into a data burst~~
~~bandwidth~~; and

granting said data burst bandwidths to ~~the~~ respective data providers over the asynchronous communication medium.

2. (original) The method of claim 1, wherein said asynchronous communication medium is cable TV.
3. (original) The method of claim 1, wherein said asynchronous communication medium is wireless.
4. (original) The method of claim 1, wherein said asynchronous communication medium is satellite.
5. (original) The method of claim 1, wherein said asynchronous communication medium is the Internet.
6. (currently amended) The method of claim 1, wherein said order ~~is priority~~ first come first served to be serviced is determined by servicing bandwidth requests having a higher priority identifier before bandwidth requests having a lower priority identifier, and servicing the bandwidth requests for each priority identifier according to the order in which the bandwidth requests were received.
7. (currently amended) The method of claim 1, wherein ~~each said~~ at least one data burst bandwidth may contain is calculated by combining the amount of required bandwidth specified in scheduled bandwidth requests ~~with~~ having different priority identifiers.

8. (original) The method of claim 1, wherein said data structure is comprised of one or more queues.

9. (currently amended) A method for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising the steps of:

receiving bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier, and ~~the~~ an amount of required bandwidth;

calculating a data burst bandwidth by combining, by the amount of required bandwidth specified in bandwidth requests having the same data provider identifier and the same priority identifier, the amount of bandwidth required to represent a data burst bandwidth; and

~~based on one or more quality of service parameters (which varies from priority to priority); scheduling each said~~ the granting of the data burst bandwidth ~~in an order to be serviced to a data provider based on one or more quality of service parameters; and~~

~~granting said data burst bandwidth to the data provider over the asynchronous communication medium.~~

10. (original) The method of claim 9, wherein said quality of service parameters include efficiency of transmission and transfer delay tolerance.

11. (original) The method of claim 9, wherein said asynchronous communication medium is cable TV.
12. (original) The method of claim 9, wherein said asynchronous communication medium is wireless.
13. (original) The method of claim 9, wherein said asynchronous communication medium is satellite.
14. (original) The method of claim 9, wherein said asynchronous communication medium is the Internet.
15. (currently amended) The method of claim 9, wherein said ~~order is priority~~ first come first served scheduling the granting of the data burst bandwidth to a data provider is also based on at least one of the priority identifier and an order in which the bandwidth requests were received.
16. (canceled)
17. (currently amended) A system for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising:
a headend; and

a scheduler coupled to said headend,

wherein said scheduler receives bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier that identifies a type of data to be transmitted, and ~~the~~ an amount of required bandwidth,

wherein said scheduler stores ~~each of~~ the bandwidth requests in a data structure so as to maintain ~~the~~ an order in which the bandwidth requests were received,

wherein said scheduler schedules ~~each said~~ the bandwidth requests in an order to be serviced based on said priority identifier and said order ~~of each~~ in which the bandwidth requests were received, and

wherein said scheduler ~~combines each of said~~ calculates a data burst bandwidth for each of said one or more data providers by combining the amount of required bandwidth specified in scheduled bandwidth requests having the same said data provider identifier ~~into a data burst bandwidth~~, and

wherein said headend grants said data burst bandwidths to ~~the~~ respective data providers over the asynchronous communication medium.

18. (original) The system of claim 17, wherein said asynchronous communication medium is cable TV.

19. (original) The system of claim 17, wherein said asynchronous communication medium is wireless.

20. (original) The system of claim 17, wherein said asynchronous communication medium is satellite.

21. (original) The system of claim 17, wherein said asynchronous communication medium is the Internet.

22. (currently amended) The system of claim 17, wherein said order is priority first come first served to be serviced is determined by servicing bandwidth requests having a higher priority identifier before bandwidth requests having a lower priority identifier, and servicing the bandwidth requests for each priority identifier according to said order in which the bandwidth requests were received.

23. (currently amended) The system of claim 17, wherein ~~each~~ at least one ~~said data burst~~ bandwidth is calculated by combining the amount of required bandwidth specified in scheduled ~~may contain~~ bandwidth requests ~~with~~ having different priority identifiers.

24. (original) The system of claim 17, wherein said data structure is comprised of one or more queues.

25. (currently amended) A system for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising:

a headend; and

a scheduler coupled to said headend,

wherein said scheduler receives bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier, and ~~the~~ an amount of required bandwidth,

wherein said scheduler ~~combines, by~~ calculates a data burst bandwidth by combining the amount of required bandwidth specified in bandwidth requests having the same data provider identifier and the same priority identifier, the amount of bandwidth required to represent a data burst bandwidth,

wherein said scheduler, ~~based on one or more quality of service parameters (which varies from priority to priority),~~ schedules ~~each said~~ the granting of the data burst bandwidth ~~in an order to be serviced to a data provider based on one or more quality of service parameters, and~~

~~wherein said headend grants said data burst bandwidth to the data provider over the asynchronous communication medium.~~

26. (original) The system of claim 25, wherein said quality of service parameters include efficiency of transmission and transfer delay tolerance.

27. (original) The system of claim 25, wherein said asynchronous communication medium is cable TV.

28. (original) The system of claim 25, wherein said asynchronous communication medium is wireless.

29. (original) The system of claim 25, wherein said asynchronous communication medium is satellite.

30. (original) The system of claim 25, wherein said asynchronous communication medium is the Internet.

31. (currently amended) The system of claim 25, wherein said ~~order is~~ priority first come first served scheduler also schedules the granting of the data burst bandwidth to a data provider based on at least one of the priority identifier and an order in which the bandwidth requests were received.

32. (canceled)

33. (canceled)

34. (canceled)